



SEQUENCE LISTING

<110> Scholler, Nathalie B.
Disis, Mary L.
Hellstrom, Ingegerd
Hellstrom, Karl Erik

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<211> 1255

<212> PRT

<213> Homo sapiens

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Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu Thr Tyr

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Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr				
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Leu Glu Asp Asp Asp Met	Gly Asp Leu Val Asp	Ala Glu Tyr Leu
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<212> DNA

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<213> *Drosophila melanogaster*

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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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 attttaattc atttattatt ctggaatata tccttaaata atttatttag gaaggctgtc 240
 tggtgggtgg tatttctgtt gcagttgttg ttttcttgcc tgcttggtga catatttcta 300
 ttgacttgac acttaactgg catcttatct aggtagataa tgctaattca aaattctgca 360


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gatattggtc tgttgttttt tgccatttag ggttgagtaa gatgccaagt tggtttttgg 420
ttctctgtag tcattctgtt ttcatTTTgt ttttagcttt gcctttggaa tttaaaatgt 480
tcaaaatgat ttgtctggat gagaatcgat tttcataact tttgctttga tacactaaac 540
agtttgagtt tctagatgat gccatttta attcatacga ggaaatatct tctagtatag 600
tttctgcttg attaattcta tgtttgtctc ttagggacat ctattaattt tataatgctg 660
cctttttttc agacttctgt ttcagaatat tgcgtttcat gaatgtaatc cttggctata 720
gtaggaatga aataataaaa gcagtagctt ctgtctgccc tccttggtta tgcagtcctt 780
acagacattc tccccacctc ccatcccccc accccagctc agtgaaactc tccacacttt 840
ggttgaggaa attggcaggg ttaggtggct actcactccc aatccacatc cacaataaat 900
cactttttat tatcttatca aaatctgtag aatgcctctt tattctattt tgttgctgcg 960
gaggtttgtt ttctctttct aattatttta ttttctaggt tttttgaggg aatttcaaga 1020
ggggagattt tttattcagg ctcatcttaa cgtcatgtct ggaactcaag ctactgaatt 1080
atatattctt taatacatat agacctacgt caatgagttt aaactgcaag gaaagggta 1140
aatttcttcc tcaagtgtgg tcaaaatctg tagagaaaag aggaacagct tctcttaaag 1200
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<210> 11

<211> 356

<212> PRT

<213> Mus musculus

<400> 11

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Met Ala Lys Thr Ile Arg Arg Leu Ser Val Ala Phe Leu Thr Leu Ser
1          5          10          15
Asp Arg Gly Pro His Tyr Lys Ile Leu Leu Pro Leu Pro His Lys Gly
20          25          30
Trp Thr Pro Gly Leu Thr His Asn Ala Ser Leu Tyr Cys Ala Ser Ile
35          40          45
Ile Leu Lys Asn Thr Met Gly Leu Ala Ile Leu Ile Phe Val Thr Val
50          55          60
Leu Leu Ile Ser Asp Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn
65          70          75          80
Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser
85          90          95
Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu
100         105         110
Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys
115         120         125
Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu
130         135         140
His Asn Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln
145         150         155         160
Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu
165         170         175
Leu Ser Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln
180         185         190
Asn Val Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln
195         200         205
Gly His Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr
210         215         220
Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu
225         230         235         240
Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val

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				245					250				255			
Trp	His	Met	Thr	Val	Val	Cys	Val	Leu	Glu	Thr	Glu	Ser	Met	Lys	Ile	
			260					265					270			
Ser	Ser	Lys	Pro	Leu	Asn	Phe	Thr	Gln	Glu	Phe	Pro	Ser	Pro	Gln	Thr	
		275					280					285				
Tyr	Trp	Lys	Glu	Ile	Thr	Ala	Ser	Val	Thr	Val	Ala	Leu	Leu	Leu	Val	
	290					295					300					
Met	Leu	Leu	Ile	Ile	Val	Cys	His	Lys	Lys	Pro	Asn	Gln	Pro	Ser	Arg	
305					310					315					320	
Pro	Ser	Asn	Thr	Ala	Ser	Lys	Leu	Glu	Arg	Asp	Ser	Asn	Ala	Asp	Arg	
			325					330						335		
Glu	Thr	Ile	Asn	Leu	Lys	Glu	Leu	Glu	Pro	Gln	Ile	Ala	Ser	Ala	Lys	
		340						345					350			
Pro	Asn	Ala	Glu													
		355														

<210> 12

<211> 356

<212> PRT

<213> Mus musculus

<400> 12

Met	Ala	Lys	Thr	Ile	Arg	Arg	Leu	Ser	Val	Ala	Phe	Leu	Thr	Leu	Ser	
1				5				10						15		
Asp	Arg	Gly	Pro	His	Tyr	Lys	Ile	Leu	Leu	Pro	Leu	Pro	His	Lys	Gly	
		20					25					30				
Trp	Thr	Pro	Gly	Leu	Thr	His	Asn	Ala	Ser	Leu	Tyr	Cys	Ala	Ser	Ile	
		35				40						45				
Ile	Leu	Lys	Asn	Thr	Met	Gly	Leu	Ala	Ile	Leu	Ile	Phe	Val	Thr	Val	
	50					55					60					
Leu	Leu	Ile	Ser	Asp	Ala	Val	Ser	Val	Glu	Thr	Gln	Ala	Tyr	Phe	Asn	
65				70					75						80	
Gly	Thr	Ala	Tyr	Leu	Pro	Cys	Pro	Phe	Thr	Lys	Ala	Gln	Asn	Ile	Ser	
			85					90						95		
Leu	Ser	Glu	Leu	Val	Val	Phe	Trp	Gln	Asp	Gln	Gln	Lys	Leu	Val	Leu	
		100					105						110			
Tyr	Glu	His	Tyr	Leu	Gly	Thr	Glu	Lys	Leu	Asp	Ser	Val	Asn	Ala	Lys	
	115					120						125				
Tyr	Leu	Gly	Arg	Thr	Ser	Phe	Asp	Arg	Asn	Asn	Trp	Thr	Leu	Arg	Leu	
	130				135						140					
His	Asn	Val	Gln	Ile	Lys	Asp	Met	Gly	Ser	Tyr	Asp	Cys	Phe	Ile	Gln	
145				150					155						160	
Lys	Lys	Pro	Pro	Thr	Gly	Ser	Ile	Ile	Leu	Gln	Gln	Thr	Leu	Thr	Glu	
			165					170					175			
Leu	Ser	Val	Ile	Ala	Asn	Phe	Ser	Glu	Pro	Glu	Ile	Lys	Leu	Ala	Gln	
		180					185					190				
Asn	Val	Thr	Gly	Asn	Ser	Gly	Ile	Asn	Leu	Thr	Cys	Thr	Ser	Lys	Gln	
	195					200						205				
Gly	His	Pro	Lys	Pro	Lys	Lys	Met	Tyr	Phe	Leu	Ile	Thr	Asn	Ser	Thr	
	210				215						220					
Asn	Glu	Tyr	Gly	Asp	Asn	Met	Gln	Ile	Ser	Gln	Asp	Asn	Val	Thr	Glu	
225				230					235						240	
Leu	Phe	Ser	Ile	Ser	Asn	Ser	Leu	Ser	Leu	Ser	Phe	Pro	Asp	Gly	Val	
			245					250						255		

Trp His Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile
 260 265 270
 Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr
 275 280 285
 Tyr Trp Lys Glu Ile Thr Ala Ser Val Thr Val Ala Leu Leu Leu Val
 290 295 300
 Met Leu Leu Ile Ile Val Cys His Lys Lys Pro Asn Gln Pro Ser Arg
 305 310 315 320
 Pro Ser Asn Thr Ala Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp Arg
 325 330 335
 Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala Lys
 340 345 350
 Pro Asn Ala Glu
 355

<210> 13
 <211> 309
 <212> PRT
 <213> Mus musculus

<400> 13
 Met Asp Pro Arg Cys Thr Met Gly Leu Ala Ile Leu Ile Phe Val Thr
 1 5 10 15
 Val Leu Leu Ile Ser Asp Ala Val Ser Val Glu Thr Gln Ala Tyr Phe
 20 25 30
 Asn Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile
 35 40 45
 Ser Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val
 50 55 60
 Leu Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala
 65 70 75 80
 Lys Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg
 85 90 95
 Leu His Asn Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile
 100 105 110
 Gln Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr
 115 120 125
 Glu Leu Ser Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala
 130 135 140
 Gln Asn Val Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys
 145 150 155 160
 Gln Gly His Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser
 165 170 175
 Thr Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr
 180 185 190
 Glu Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly
 195 200 205
 Val Trp His Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys
 210 215 220
 Ile Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln
 225 230 235 240
 Thr Tyr Trp Lys Glu Ile Thr Ala Ser Val Thr Val Ala Leu Leu Leu
 245 250 255
 Val Met Leu Leu Ile Ile Val Cys His Lys Lys Pro Asn Gln Pro Ser

260 265 270
 Arg Pro Ser Asn Thr Ala Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp
 275 280 285
 Arg Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala
 290 295 300
 Lys Pro Asn Ala Glu
 305

<210> 14
 <211> 314
 <212> PRT
 <213> Mus musculus

<400> 14
 Met Tyr Val Ile Lys Thr Cys Ala Thr Cys Thr Met Gly Leu Ala Ile
 1 5 10 15
 Leu Ile Phe Val Thr Val Leu Leu Ile Ser Asp Ala Val Ser Val Glu
 20 25 30
 Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr
 35 40 45
 Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val Val Phe Trp Gln Asp
 50 55 60
 Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu
 65 70 75 80
 Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn
 85 90 95
 Asn Trp Thr Leu Arg Leu His Asn Val Gln Ile Lys Asp Met Gly Ser
 100 105 110
 Tyr Asp Cys Phe Ile Gln Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu
 115 120 125
 Gln Gln Thr Leu Thr Glu Leu Ser Val Ile Ala Asn Phe Ser Glu Pro
 130 135 140
 Glu Ile Lys Leu Ala Gln Asn Val Thr Gly Asn Ser Gly Ile Asn Leu
 145 150 155 160
 Thr Cys Thr Ser Lys Gln Gly His Pro Lys Pro Lys Lys Met Tyr Phe
 165 170 175
 Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser
 180 185 190
 Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu
 195 200 205
 Ser Phe Pro Asp Gly Val Trp His Met Thr Val Val Cys Val Leu Glu
 210 215 220
 Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu
 225 230 235 240
 Phe Pro Ser Pro Gln Thr Tyr Trp Lys Glu Ile Thr Ala Ser Val Thr
 245 250 255
 Val Ala Leu Leu Leu Val Met Leu Leu Ile Ile Val Cys His Lys Lys
 260 265 270
 Pro Asn Gln Pro Ser Arg Pro Ser Asn Thr Ala Ser Lys Leu Glu Arg
 275 280 285
 Asp Ser Asn Ala Asp Arg Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro
 290 295 300
 Gln Ile Ala Ser Ala Lys Pro Asn Ala Glu
 305 310

<210> 15
 <211> 303
 <212> PRT
 <213> Mus musculus

<400> 15
 Met Gly Leu Ala Ile Leu Ile Phe Val Thr Val Leu Leu Ile Ser Asp
 1 5 10 15
 Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu
 20 25 30
 Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val
 35 40 45
 Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu
 50 55 60
 Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr
 65 70 75 80
 Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn Val Gln Ile
 85 90 95
 Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys Pro Pro Thr
 100 105 110
 Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser Val Ile Ala
 115 120 125
 Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val Thr Gly Asn
 130 135 140
 Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His Pro Lys Pro
 145 150 155 160
 Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp
 165 170 175
 Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser
 180 185 190
 Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His Met Thr Val
 195 200 205
 Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu
 210 215 220
 Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp Lys Glu Ile
 225 230 235 240
 Thr Ala Ser Val Thr Val Ala Leu Leu Leu Val Met Leu Leu Ile Ile
 245 250 255
 Val Cys His Lys Lys Pro Asn Gln Pro Ser Arg Pro Ser Asn Thr Ala
 260 265 270
 Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp Arg Glu Thr Ile Asn Leu
 275 280 285
 Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala Lys Pro Asn Ala Glu
 290 295 300

<210> 16
 <211> 356
 <212> PRT
 <213> Mus musculus

<400> 16
 Met Ala Lys Thr Ile Arg Arg Leu Ser Val Ala Phe Leu Thr Leu Ser
 1 5 10 15

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Asp Arg Gly Pro His Tyr Lys Ile Leu Leu Pro Leu Pro His Lys Gly
      20      25      30
Trp Thr Pro Gly Leu Thr His Asn Ala Ser Leu Tyr Cys Ala Ser Ile
      35      40      45
Ile Leu Lys Asn Thr Met Gly Leu Ala Ile Leu Ile Phe Val Thr Val
      50      55      60
Leu Leu Ile Ser Asp Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn
      65      70      75      80
Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser
      85      90      95
Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu
      100      105      110
Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys
      115      120      125
Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu
      130      135      140
His Asn Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln
      145      150      155      160
Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu
      165      170      175
Leu Ser Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln
      180      185      190
Asn Val Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln
      195      200      205
Gly His Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr
      210      215      220
Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu
      225      230      235      240
Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val
      245      250      255
Trp His Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile
      260      265      270
Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr
      275      280      285
Tyr Trp Lys Glu Ile Thr Ala Ser Val Thr Val Ala Leu Leu Leu Val
      290      295      300
Met Leu Leu Ile Ile Val Cys His Lys Lys Pro Asn Gln Pro Ser Arg
      305      310      315      320
Pro Ser Asn Thr Ala Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp Arg
      325      330      335
Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala Lys
      340      345      350
Pro Asn Ala Glu
      355

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<210> 17

<211> 356

<212> PRT

<213> Mus musculus

<400> 17

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Met Ala Lys Thr Ile Arg Arg Leu Ser Val Ala Phe Leu Thr Leu Ser
  1      5      10      15
Asp Arg Gly Pro His Tyr Lys Ile Leu Leu Pro Leu Pro His Lys Gly

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[illegible]

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<210> 18
<211> 309
<212> PRT
<213> Mus musculus
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<400> 18
Met Asp Pro Arg Cys Thr Met Gly Leu Ala Ile Leu Ile Phe Val Thr
 1          5          10
Val Leu Leu Ile Ser Asp Ala Val Ser Val Glu Thr Gln Ala Tyr Phe
          20          25          30

```

```

Asn Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile
   35              40              45
Ser Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val
   50              55              60
Leu Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala
  65              70              75              80
Lys Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg
              85              90              95
Leu His Asn Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile
              100              105              110
Gln Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr
              115              120              125
Glu Leu Ser Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala
              130              135              140
Gln Asn Val Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys
 145              150              155              160
Gln Gly His Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser
              165              170              175
Thr Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr
              180              185              190
Glu Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly
              195              200              205
Val Trp His Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys
              210              215              220
Ile Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln
 225              230              235              240
Thr Tyr Trp Lys Glu Ile Thr Ala Ser Val Thr Val Ala Leu Leu Leu
              245              250              255
Val Met Leu Leu Ile Ile Val Cys His Lys Lys Pro Asn Gln Pro Ser
              260              265              270
Arg Pro Ser Asn Thr Ala Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp
              275              280              285
Arg Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala
              290              295              300
Lys Pro Asn Ala Glu
305

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<210> 19

<211> 314

<212> PRT

<213> Mus musculus

<400> 19

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Met Tyr Val Ile Lys Thr Cys Ala Thr Cys Thr Met Gly Leu Ala Ile
  1              5              10              15
Leu Ile Phe Val Thr Val Leu Leu Ile Ser Asp Ala Val Ser Val Glu
              20              25              30
Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr
              35              40              45
Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val Val Phe Trp Gln Asp
              50              55              60
Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu
  65              70              75              80
Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn

```


Asn	Trp	Thr	Leu	Arg	Leu	His	Asn	Val	Gln	Ile	Lys	Asp	Met	Gly	Ser
			100					105					110		
Tyr	Asp	Cys	Phe	Ile	Gln	Lys	Lys	Pro	Pro	Thr	Gly	Ser	Ile	Ile	Leu
		115					120					125			
Gln	Gln	Thr	Leu	Thr	Glu	Leu	Ser	Val	Ile	Ala	Asn	Phe	Ser	Glu	Pro
		130				135					140				
Glu	Ile	Lys	Leu	Ala	Gln	Asn	Val	Thr	Gly	Asn	Ser	Gly	Ile	Asn	Leu
145					150					155					160
Thr	Cys	Thr	Ser	Lys	Gln	Gly	His	Pro	Lys	Pro	Lys	Lys	Met	Tyr	Phe
			165						170					175	
Leu	Ile	Thr	Asn	Ser	Thr	Asn	Glu	Tyr	Gly	Asp	Asn	Met	Gln	Ile	Ser
			180					185					190		
Gln	Asp	Asn	Val	Thr	Glu	Leu	Phe	Ser	Ile	Ser	Asn	Ser	Leu	Ser	Leu
		195					200					205			
Ser	Phe	Pro	Asp	Gly	Val	Trp	His	Met	Thr	Val	Val	Cys	Val	Leu	Glu
	210					215					220				
Thr	Glu	Ser	Met	Lys	Ile	Ser	Ser	Lys	Pro	Leu	Asn	Phe	Thr	Gln	Glu
225					230					235					240
Phe	Pro	Ser	Pro	Gln	Thr	Tyr	Trp	Lys	Glu	Ile	Thr	Ala	Ser	Val	Thr
				245					250					255	
Val	Ala	Leu	Leu	Leu	Val	Met	Leu	Leu	Ile	Ile	Val	Cys	His	Lys	Lys
			260					265					270		
Pro	Asn	Gln	Pro	Ser	Arg	Pro	Ser	Asn	Thr	Ala	Ser	Lys	Leu	Glu	Arg
		275					280					285			
Asp	Ser	Asn	Ala	Asp	Arg	Glu	Thr	Ile	Asn	Leu	Lys	Glu	Leu	Glu	Pro
	290					295					300				
Gln	Ile	Ala	Ser	Ala	Lys	Pro	Asn	Ala	Glu						
305					310										

<210> 20

<211> 303

<212> PRT

<213> Mus musculus

<400> 20

Met	Gly	Leu	Ala	Ile	Leu	Ile	Phe	Val	Thr	Val	Leu	Leu	Ile	Ser	Asp
1				5					10					15	
Ala	Val	Ser	Val	Glu	Thr	Gln	Ala	Tyr	Phe	Asn	Gly	Thr	Ala	Tyr	Leu
			20					25					30		
Pro	Cys	Pro	Phe	Thr	Lys	Ala	Gln	Asn	Ile	Ser	Leu	Ser	Glu	Leu	Val
		35					40					45			
Val	Phe	Trp	Gln	Asp	Gln	Gln	Lys	Leu	Val	Leu	Tyr	Glu	His	Tyr	Leu
	50					55					60				
Gly	Thr	Glu	Lys	Leu	Asp	Ser	Val	Asn	Ala	Lys	Tyr	Leu	Gly	Arg	Thr
65					70					75					80
Ser	Phe	Asp	Arg	Asn	Asn	Trp	Thr	Leu	Arg	Leu	His	Asn	Val	Gln	Ile
				85				90						95	
Lys	Asp	Met	Gly	Ser	Tyr	Asp	Cys	Phe	Ile	Gln	Lys	Lys	Pro	Pro	Thr
			100					105					110		
Gly	Ser	Ile	Ile	Leu	Gln	Gln	Thr	Leu	Thr	Glu	Leu	Ser	Val	Ile	Ala
		115					120					125			
Asn	Phe	Ser	Glu	Pro	Glu	Ile	Lys	Leu	Ala	Gln	Asn	Val	Thr	Gly	Asn
	130						135					140			

Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His Pro Lys Pro
 145 150 155 160
 Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp
 165 170 175
 Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser
 180 185 190
 Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His Met Thr Val
 195 200 205
 Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu
 210 215 220
 Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp Lys Glu Ile
 225 230 235 240
 Thr Ala Ser Val Thr Val Ala Leu Leu Leu Val Met Leu Leu Ile Ile
 245 250 255
 Val Cys His Lys Lys Pro Asn Gln Pro Ser Arg Pro Ser Asn Thr Ala
 260 265 270
 Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp Arg Glu Thr Ile Asn Leu
 275 280 285
 Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala Lys Pro Asn Ala Glu
 290 295 300

<210> 21
 <211> 1424
 <212> DNA
 <213> Homo sapiens

<400> 21
 aggagcctta ggaggtacgg ggagctcgca aatactcctt ttgggtttatt cttaccacct 60
 tgcttctgtg ttcccttgga atgctgctgt gcttatgcat ctggctctctt tttggagcta 120
 cagtggacag gcatttgtga cagcactatg ggactgagta acattctctt tgtgatggcc 180
 ttcttgctct ctggtgctgc tcctctgaag attcaagctt atttcaatga gactgcagac 240
 ctgccatgcc aatttgcaaa ctctcaaaac caaagcctga gtgagctagt agtattttgg 300
 caggaccagg aaaacttggt tctgaatgag gtatacttag gcaaagagaa atttgacagt 360
 gttcattcca agtatatggg ccgcacaagt tttgattcgg acagttggac cctgagactt 420
 cacaatcttc agatcaagga caagggcttg tatcaatgta tcatccatca caaaaagccc 480
 acaggaatga ttcgcatcca ccagatgaat tctgaactgt cagtgccttg taacttcagt 540
 caacctgaaa tagtaccaat ttctaataata acagaaaatg tgtacataaa tttgacctgc 600
 tcatctatac acggttaccc agaacctaa aagatgagtg ttttgctaag aaccaagaat 660
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<210> 22
 <211> 323

<212> PRT
 <213> Homo sapiens

<400> 22

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 20           25           30
Pro Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val
 35           40           45
Val Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu
 50           55           60
Gly Lys Glu Lys Phe Asp Ser Val His Ser Lys Tyr Met Gly Arg Thr
 65           70           75           80
Ser Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile
 85           90           95
Lys Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr
 100          105          110
Gly Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala
 115          120          125
Asn Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn
 130          135          140
Val Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro
 145          150          155          160
Lys Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr
 165          170          175
Asp Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp
 180          185          190
Val Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met
 195          200          205
Thr Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser
 210          215          220
Pro Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile
 225          230          235          240
Pro Trp Ile Thr Ala Val Leu Pro Thr Val Ile Ile Cys Val Met Val
 245          250          255
Phe Cys Leu Ile Leu Trp Lys Trp Lys Lys Lys Lys Arg Pro Arg Asn
 260          265          270
Ser Tyr Lys Cys Gly Thr Asn Thr Met Glu Arg Glu Glu Ser Glu Gln
 275          280          285
Thr Lys Lys Arg Glu Lys Ile His Ile Pro Glu Arg Ser Asp Glu Ala
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Gln Arg Val Phe Lys Ser Ser Lys Thr Ser Ser Cys Asp Lys Ser Asp
 305          310          315          320
Thr Cys Phe

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<210> 23
 <211> 1183
 <212> DNA
 <213> Mus musculus

<400> 23

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<210> 24

<211> 309

<212> PRT

<213> Mus musculus

<400> 24

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20     25     30
Asn Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile
35     40     45
Ser Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val
50     55     60
Leu Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala
65     70     75     80
Lys Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg
85     90     95
Leu His Asn Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile
100    105    110
Gln Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr
115    120    125
Glu Leu Ser Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala
130    135    140
Gln Asn Val Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys
145    150    155    160
Gln Gly His Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser
165    170    175
Thr Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr
180    185    190
Glu Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly
195    200    205
Val Trp His Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys
210    215    220

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Ile Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln
 225 230 235 240
 Thr Tyr Trp Lys Glu Ile Thr Ala Ser Val Thr Val Ala Leu Leu Leu
 245 250 255
 Val Met Leu Leu Ile Ile Val Cys His Lys Lys Pro Asn Gln Pro Ser
 260 265 270
 Arg Pro Ser Asn Thr Ala Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp
 275 280 285
 Arg Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala
 290 295 300
 Lys Pro Asn Ala Glu
 305

<210> 25
 <211> 1112
 <212> DNA
 <213> Homo sapiens

<400> 25
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 cactatggga ctgagtaaca ttctctttgt gatggccttc ctgctctctg gtgctgctcc 180
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 aattctatgg aaatggaaga agaagaagcg gcctcgcaac tcttataaat gtggaaccaa 960
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<210> 26
 <211> 329
 <212> PRT
 <213> Homo sapiens

<400> 26
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 20 25 30
 Asn Glu Thr Ala Asp Leu Pro Cys Gln Phe Ala Asn Ser Gln Asn Gln
 35 40 45
 Ser Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Glu Asn Leu Val
 50 55 60
 Leu Asn Glu Val Tyr Leu Gly Lys Glu Lys Phe Asp Ser Val His Ser

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